



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,979	12/08/2005	John Kouvetakis	05-720-US1	6573
20306	7590	06/16/2006	EXAMINER	
MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP			RAO, SHRINIVAS H	
300 S. WACKER DRIVE			ART UNIT	
32ND FLOOR			PAPER NUMBER	
CHICAGO, IL 60606			2814	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/559,979

Applicant(s)

KOUVETAKIS ET AL.

Examiner

Steven H. Rao

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2814

DETAILED ACTION

Priority

Acknowledgement is made of claim to priority from Provisional Patent Application No. 60/478,480 filed on June 13, 2003.

Therefore currently the earliest available filling date is June 13, 2003.

Information Disclosure Statement

To date no IDS has been filed in this case.

Double Patenting

Claims 1-2 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-12 of prior U.S. Patent No. 6,897,471('471) This is a double patenting rejection.

Claim1 of the instant Application claims (a) substrate – also recited in claim 1 (a) of ' 471 patent as silicon substrate ; (b) a $\text{Sn}_x\text{Ge}_{1-x}$ layer on the substrate also recited in claim 1 (b) of ' 471 patent as $\text{Ge}_{1-y}\text{Sn}_y$ and (c) Ge-Sn-Si layer over $\text{Sn}_x\text{Ge}_{1-x}$ layer also recited in claim 1 (b) of ' 471 patent as $\text{Ge}_{1-y-z}\text{Sn}_y\text{Si}_z$.

Claim 2 of the instant Application claims the substrate as comprising silicon – also recited in claim 1 (a) of ' 471 patent as silicon substrate.

Claim 3 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-19 of prior U.S. Patent No. 6,911,084 ('084) This is a double patenting rejection.

Art Unit: 2814

Claim 3 of the instant Application claims a method for synthesizing a compound having the molecular formula $H_3Si-GeH_3$ (claims 1, 15 and 16 of "084 patent) the method comprising combining H_3SiO_3SCF with $KGeH_3$ under conditions whereby H_3SiGeH_3 is obtained. (claims 1,15 and 16 of "084 patent).

The basis of double patenting rejections are (a) at least one common inventor and also (b) Subject to joint research agreement under 35USC 103 (c) (2) and 3 (Create Act), MPEP 804.03 etc. .

There may be potential provisional double patenting issues over PCT/US04/43854 and PCT/US05/12157 , if and when these applications reach national stage, also.

It is further noted that "471 patent (6,897,471) patent itself has a terminal disclaimer based on US patent No. 5,548,128.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Soref et al. (U.S. Patent No. 5,548,128, hereinafter Soref) .

Art Unit: 2814

With respect to claim 1 Soref describes a semiconductor structure comprising : a substrate (Soref figs. 1 or 2 # 1) , a SnxGel-x layer formed over the substrate(soref figs. 1 or 2 #13 , col. 2 line 45-47) and a Ge-Sn-Si layer formed over the SnxGel-x layer(Soref figs.1 or 2 # 19, col. 3 line 44-45).

With respect to claim 2 Soref describes the semiconductor structure of claim 1 wherein the substrate comprises silicon. (Soref fig. 2 # 1 , col. 2 lines 40-42).

B. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Fiesalman (U.S. Patent No. 4,777,023, herein after Fiesalman).

With respect to claim 3 Fiesalman describes a method for synthesizing a compound having the molecular formula $H_3Si-GeH_3$ (Fieselman Exs. 1 to 7, etc.) , the method comprising combining $H_3SiO_3SCF_3$ with $KGeH_3$ under conditions whereby H_3SiGeH_3 is obtained. (col.2 lines 37 to 46).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. Rao whose telephone number is (571)272-1718. The examiner can normally be reached on 8.00 to 5.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fahmy Wael can be reached on (571) 272-1714. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2814

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven H. Rao

Patent Examiner

June 06, 2006.



LONG PHAM
PRIMARY EXAMINER